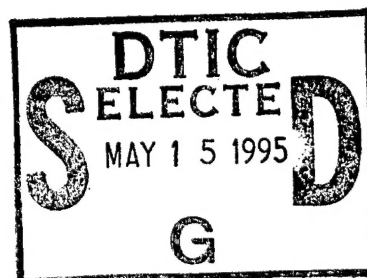


NATIONAL AIR INTELLIGENCE CENTER



SATELLITE MOBILE COMMUNICATION SYSTEM:
NAVIGATION POSITION SYSTEM



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HUMAN TRANSLATION

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SATELLITE MOBILE COMMUNICATION SYSTEM:
NAVIGATION POSITION SYSTEM

English pages: 9

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PREPARED BY:

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WPAFB, OHIO

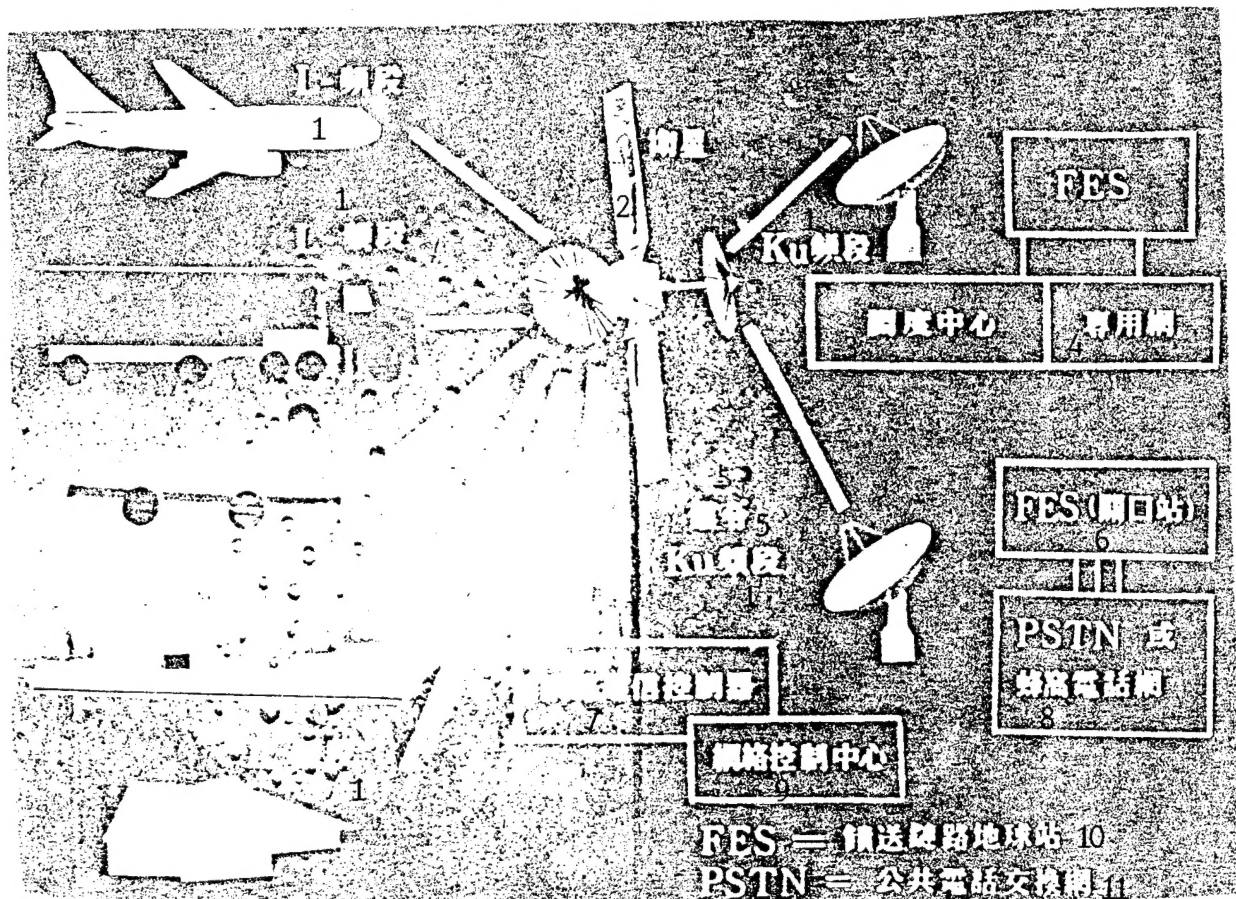
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SATELLITE MOBILE COMMUNICATION SYSTEM:
NAVIGATION POSITION SYSTEM

[Exhibit F-144665]



KEY: 1 - waveband 2 - satellite 3 - dispatch center
4 - special network 5 - command 6 - feed ground station
7 - network communication controller 8 - PSTN or cellular telephone network
9 - network control center
10 - feed chain ground station 11 - public telephone exchange network

It is intended that, before the year 2000, a large-capacity mobile communication satellite will be launched by the General Corporation to establish a domestic satellite mobile communication and navigation position system, thus providing

mobile communication services in voice, data, and navigation position-fixing for railways, highways, ships, and civil aviation. Moreover, the General Corporation will take part in the buildup of global personal mobile communication system by taking part in the "Iridium" System and the Globalstar System, providing international mobile communication services.

[Exhibit F-144669]

[Vertical characters at left: Astronautics in China]
BRIEF INTRODUCTION TO GPS COMMUNICATIONS COMPREHENSIVE
TRAFFIC NETWORK SYSTEM AND SERIES OF PRODUCTS

GPS is an abbreviation of Global Positioning System based on navigation guidance satellites.

Under Institute 704, the Beijing Satellite Technology Navigation Guidance Company, Limited, is a high-tech and high-science company specializing in GPS development, exploitation, applications, and sales. On several occasions, the following systems were developed: the VT9000 series, the CGP92 series, the CGP93 series, the CGP980 series, and the CGP93T series timing model on the GPS navigation position instrument and the DGPS ground station, and mobile GPS terminal equipment in the GPS networking system. These systems are extensively applied in the national economy, and defense fields.

The DGPS and communication networking, as well as DGPS and communication networking technology can be applied in group control and dispatch systems for mobile targets of vehicles, ships, and airplanes. The DGPS networking products have been first developed for application in monitoring, control and dispatch of mines and groups of vehicles.

At present, GPS alarming and tracking system equipment for crime-fighting is undergoing research and development.

[Exhibit T-144666]

[Vertical characters at the left: Astronautics in China]

Model CGP-93 and the model CGP-980 navigation guidance instruments:

The model CGP-93 is a hand-held-type navigation positioning instrument, capable of receiving signals from three or four satellites to determine the two- or three-dimensional position and local time. For mobile targets, three-dimensional speeds can be determined.

Model CGP-980 navigation positioning instrument has the following functions.

- Indicates the position of a mobile target with longitude and latitude data:

- store all data for maps in the activity range; indicate the direction and speed of the mobile target, and has a memory for important positions;

- Indicate the navigation focus of the mobile targets, and also can establish the target point for the user to help him in navigating to this target point;

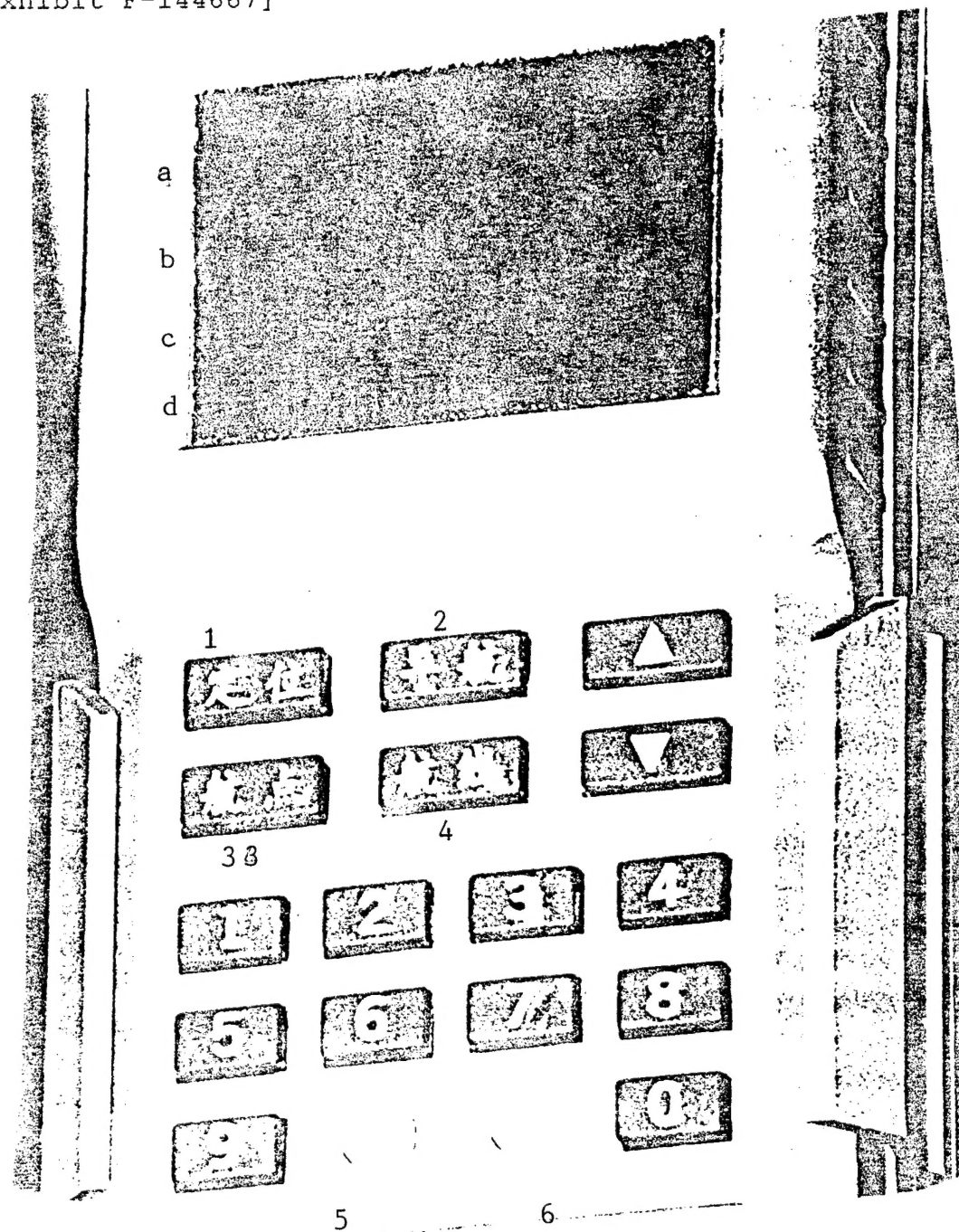
- Automatic alarming is released if deviating from the navigation route during navigation;

- Automatic alarming is released if the target is reached, or if the heading deviates from the navigation route;

- Indicate the present date and time, and also can indicate local time based on the time that the vehicle is in;

- During operation, assistance is rendered at all times by the prompting instrument. Chinese-character display is provided on a display screen, illuminated keyboard, and information.

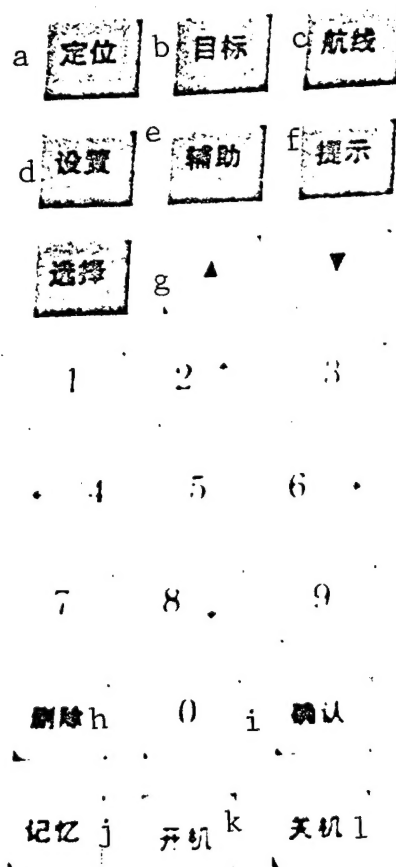
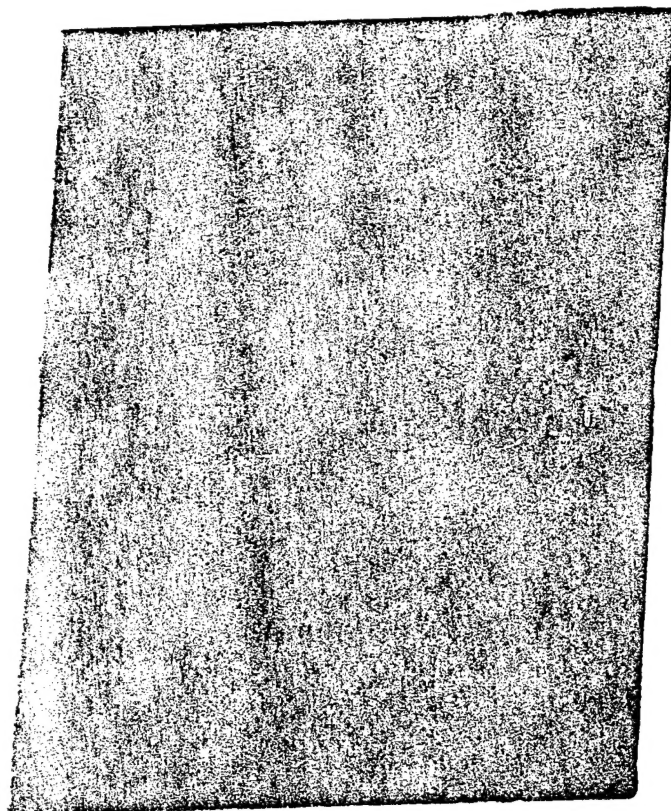
[Exhibit F-144667]



KEY: 1 - positioning 2 - navigation guidance 3 - navigation point 4 - navigation route 5 - OFF switch 6 - ON switch
a - East Longitude 116°25.13' b - North Latitude 36°4.83'

c - 0000 Sea zone 00 Sub zone d - Navigation direction is due
north

[Exhibit F-144668]



KEY: a - positioning b - target c - navigation route
d - setting e - supplementary f - suggestion g - selection
h - cancellation i - confirm j - store k - ON l - OFF
[screen display]

Positioning
Accuracy Waiting
North Lat. 39°47.83
East Long. 116°25.13
Flow speed (knots) 0.0 Navigation direction 0.00°
14:07:51 6 Oct 1994
Star number 26 16 17 06 24
Constellation
Tracking
Ephemeris

[at bottom of instrument] CGP-980 Beijing Satellite Technology
Navigation Company Limited

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Q008 NTIC	1
Q043 AFMIC-IS	1
E051 HQ USAF/INET	1
E404 AEDC/DOF	1
E408 AFWL	1
E410 AFDTC/IN	1
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